

## AMENDMENTS TO THE SPECIFICATION

**Please amend the title as follows:**

~~MOVING-PART WHEEL~~ INTENDED TO COME INTO CONTACT WITH ANOTHER  
MOVING OR ~~FIXED~~ STANDING ELEMENT

**Please replace the paragraph beginning at page 1, line 1, with the following  
rewritten paragraph:**

### BACKGROUND OF THE INVENTION

The invention consists of a ~~moving-part wheel~~, or wheel and pinion intended to come into contact with another moving or ~~fixed~~ standing element.

**Please replace the paragraph beginning at page 1, line 4, with the following  
rewritten paragraph:**

In watch-making, for example, when an additional ~~moving-part wheel~~ is added to an existing mechanism, ~~the pin of a moving-part~~ it may often include or incorporate a staff that has to pass right through the mechanism plate in order, for example, to indicate something on the face, ~~for example~~. As a result, the ~~pin staff~~ of the ~~moving-part wheel~~ may come into contact with one or more existing components of the movement. Therefore, numerous complications arise if ~~you have to change~~ the position of the ~~swivel-pin staff~~ of the ~~moving-part wheel~~ going right through the mechanism plate needs to be changed.

### BRIEF SUMMARY OF THE INVENTION

~~This problem led the holder to propose~~ Accordingly, the present invention comprises a ~~moving-part wheel~~ that can be made to shift in relation to its ~~pin staff~~, in such a way as to avoid contact with a pin or any other component of the movement. The pressure exerted on the ~~moving-part will wheel can~~ shift the ~~pin rotation axis~~ of the said ~~moving-part wheel~~. The centre of the ~~moving-part will wheel may~~ undergo a deformation and the ~~its~~ outer edge ~~will may~~ be

shifted laterally. Thus, the ~~holder suggests proposing~~ present invention comprises a ~~moving part~~ wheel with a certain elasticity at its centre allowing it to be shifted without changing a centre distance, without altering its function and without changing its performance.

**Please replace the paragraph beginning at page 2, line 5, with the following rewritten paragraph:**

The ~~moving part~~ wheel according to the invention is characterised by the fact that it includes a hub turning on its axis, and a transmission or working ~~zone~~ part intended to come into contact with the moving or ~~fixed~~ still element, with an elastic ~~zone~~ part likely to undergo a deformation ~~placed in~~ providing a mechanical linking between the hub and the transmission ~~zone~~ part.

**Please replace the paragraph beginning at page 2, line 11, with the following rewritten paragraph:**

According to a preferred method of construction, the elastic ~~zone~~ part ~~can~~ may consist of deformable foam or a succession of thin plates linking the hub to the transmission or working ~~zone~~ part.

**Please replace the paragraph beginning at page 2, line 15, with the following rewritten paragraph:**

The transmission or working ~~zone~~ part ~~can~~ may be in the form of a toothed wheel.

**Please replace the paragraph beginning at page 2, line 17, with the following rewritten paragraph:**

The ~~moving part~~ wheel according to the invention ~~can~~ may be subjected to a pressure exerted by a bridge or a bar applied to the transmission ~~zone~~ part, the pressure exerted by the

bridge bringing the ~~moving part~~ wheel into contact with another ~~moving part~~ wheel to be moved by deforming the elastic ~~zone~~ part and shifting the rotation axis of the said ~~moving part~~ wheel.

**Please replace the paragraph beginning at page 3, line 3, with the following rewritten paragraph:**

The ~~moving part~~ wheel ~~can~~ may be used as a component part of a clutch.

**Please replace the paragraph beginning at page 3, line 5, with the following rewritten paragraph:**

The transmission ~~zone~~ part of the ~~moving part~~ wheel ~~can~~ may present a succession of teeth butting up against a section of a bridge or a ~~fixed~~ still counterbore, the advance of a step or a tooth being achieved by the deformation of the elastic ~~zone~~ part of the ~~moving part~~ wheel. In this case, the ~~moving part~~ wheel ~~can~~ may be in the shape of a star.

**Please replace the paragraph beginning at page 3, line 11, with the following rewritten paragraph:**

The transmission ~~zone~~ part of the ~~moving part~~ wheel ~~can~~ may be put together in such a way as to create a friction bearing or drive. The ~~moving part~~ wheel ~~invented could~~ may also be used in mechanics in general, particularly in the automobile industry, aviation, medicine, etc.

**Please replace the paragraph beginning at page 3, line 16, with the following rewritten paragraph:**

#### BRIEF DESCRIPTION OF THE DRAWINGS

The ~~drawings attached~~ Figures represent, as an example, several methods of construction of a ~~moving part~~ wheel likely to be shifted in relation to its axis.

**Please replace the paragraph beginning at page 4, line 1, with the following rewritten paragraph:**

figure FIG. 1 represents a top view of a first method of construction of the ~~moving part~~ wheel,

**Please replace the paragraph beginning at page 4, line 3, with the following rewritten paragraph:**

figure FIG. 2 shows a situation encountered in watch-making, where the periphery of a toothed wheel arrives exactly ~~on~~ above a ~~swivel pin~~ staff,

**Please replace the paragraph beginning at page 4, line 6, with the following rewritten paragraph:**

figure FIG. 3 is a view of the method of construction in figure FIG. 1, with the ~~moving part~~ wheel being brought into contact with a toothed wheel by the action of a bridge exerting a pressure against the ~~moving part~~ wheel by shifting its ~~swivel pin~~ transmission part,

**Please replace the paragraph beginning at page 4, line 11, with the following rewritten paragraph:**

figure FIG. 4 shows, in rest position, a clutch between two ~~moving parts~~ wheels activated by a bridge,

**Please replace the paragraph beginning at page 4, line 13, with the following rewritten paragraph:**

figure FIG. 5 shows the clutch of figure FIG. 4 in locked position by pressure exerted by the bridge,

**Please replace the paragraph beginning at page 4, line 15, with the following rewritten paragraph:**

~~figure~~ FIG. 6 shows a method of construction in which a bridge or a counterbore serves as a stop for a star,

**Please replace the paragraph beginning at page 4, line 17, with the following rewritten paragraph:**

~~figure~~ FIG. 7 shows the star shifting by a notch in relation to the process of the bridge in ~~figure~~ FIG. 6,

**Please replace the paragraph beginning at page 4, line 19, with the following rewritten paragraph:**

~~figure~~ FIG. 8 shows a ~~moving-part~~ wheel with a succession of spring plates extending from its centre to its periphery, and

**Please replace the paragraph beginning at page 4, line 22, with the following rewritten paragraph:**

~~figure~~ FIG. 9 shows the ~~moving-part in figure~~ wheel in FIG. 8 subjected to a lateral shift.

**Please replace the paragraph beginning at page 5, line 1, with the following rewritten paragraph:**

The ~~moving-part~~ wheel described in the different methods of construction has been developed for the watch-making industry. However, its application is not limited to this particular ~~sector~~ technical field, and can be extended to mechanics in general, particularly the automobile industry, aviation, micro-mechanics, machine tools, medicine, and all ~~sectors~~ fields of technology in which a ~~moving-part~~ wheel has to be brought into contact with a ~~fixed or~~

~~moving another~~ mechanical element ~~either standing or moving~~, by a deformation of the structure corresponding to a shift of its ~~centre of rotation~~ axis.

**Please replace the paragraph beginning at page 5, line 12, with the following rewritten paragraph:**

The ~~moving part~~ wheel represented in the different methods of construction has been developed for industry. Once in place, the ~~moving part~~ wheel represented in the method of construction in ~~figure~~ FIG. 1 can be brought into contact with another moving element or any other sort of transmission by being shifted from its swivel pin staff A.

**Please replace the paragraph beginning at page 5, line 18, with the following rewritten paragraph:**

~~The moving part~~ Wheel 1 consists of three separate parts:  
a hub 2,  
an elastic part 3, and  
a transmission ~~zone~~ part 4.

**Please replace the paragraph beginning at page 6, line 1, with the following rewritten paragraph:**

In ~~figure~~ FIG. 1, the ~~moving part~~ wheel 1 comes into contact with another moving ~~part~~ element 5 and is driven by a pinion 6, which exerts a lateral pressure on the transmission ~~zone~~ part 4 and brings it into contact with the moving part element 5, and the rotation ~~centre A~~ axis of the ~~moving part~~ wheel 1 being then slightly shifted to the right with respect to its staff A.

**Please replace the paragraph beginning at page 6, line 11, with the following rewritten paragraph:**

The shifted ~~moving part~~ wheel can even be shifted intermittently in full movement. This does not result in any change in operation. It can also be shifted permanently.

**Please replace the paragraph beginning at page 6, line 15, with the following rewritten paragraph:**

The operation of the ~~moving part~~ wheel 1 in figure FIG. 1 will be explained in detail with regard to figure FIG. 3.

**Please replace the paragraph beginning at page 6, line 17, with the following rewritten paragraph:**

Figure FIG. 2 shows one of the problems encountered by watch-makers, in which a ~~pin~~ staff passing through the mechanism plate of a watch comes into contact with the edge of a mechanism of the movement.

**Please replace the paragraph beginning at page 7, line 1, with the following rewritten paragraph:**

When an additional module is added to an existing mechanism, it often happens that ~~the~~ pin a staff 7 of a moving part has to pass right through the mechanism plate in order to indicate, for example, something on the face, ~~for example~~. As a result, the ~~pin~~ staff can come into contact with one or more existing components, for example, ~~moving part~~ wheel 8 engaging another ~~moving part~~ wheel 9. There are therefore numerous complications if ~~you have to change~~ the position of the ~~swivel pin~~ staff 7 needs to be changed. ~~This situation has led to the solution proposed~~ In order to overcome this problem, ~~one~~. One simply has to slightly force the ~~moving part~~ wheel to avoid the ~~pin~~ staff 7, without changing a single centre distance, without altering the function and without changing the performance of the ~~moving parts~~ wheels.

**Please replace the paragraph beginning at page 7, line 15, with the following rewritten paragraph:**

This solution can also overcome smaller problems encountered in watch-making, such as roundness<sup>+</sup>-defects in ~~moving parts~~ wheels or bracing problems between ~~moving parts~~ wheels. Minor defects due to the positions of the ~~swivel~~ staff holes of different ~~moving parts~~ wheels can also be easily corrected.

**Please replace the paragraph beginning at page 7, line 21, with the following rewritten paragraph:**

In the view in figure ~~FIG.~~ 3, ~~the moving part~~ wheel 1 is in contact with a bridge P or any component whatsoever coming into contact with the transmission ~~zone or a solid part of this zone~~. The pressure exerted by the bridge P puts a stress on the elasticity of the central part shifting only the ~~part containing the transmission zone part~~. ~~This~~ The latter remains in contact with the next ~~moving part~~, ~~and the theoretical positioning of the swivel pin wheel, while the position of the staff A of hub 2 remains unchanged.~~

**Please replace the paragraph beginning at page 8, line 7, with the following rewritten paragraph:**

The main advantage lies in the fact that the transmission ratio or the angular pitch is maintained whilst being shifted from its ~~swivel pin~~ staff A. ~~[[No]]~~ There is no need to change the module or the centre distance or even the ratio. ~~You just have to force the moving part~~ The wheel need only be forced so that it is outside the trajectory to be avoided. It is also possible that ~~it is~~ our it is only the transmission ~~zone part~~ that remains fixed still, and that ~~the~~ hub 2 is shifted. The swivel would therefore depend on the axial performance of ~~the transmission zone part~~ 4, which does not pose major problems.

**Please replace the paragraph beginning at page 8, line 17, with the following rewritten paragraph:**

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<sup>+</sup> Translator's note: "mal ronds" is assumed to mean "roundness", although only one reference to it could be found anywhere.  
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The method of construction in figures FIGS. 4 and 5 shows a moving part 10 similar to ~~the moving part wheel~~ 1 in figures FIGS. 1 to 3, with its hub 2, its elastic part 3, and its transmission zone part 4. ~~The moving part~~ Wheel 10 is intended to engage another moving part 5 as in the previous method of construction and the unit shown in figures FIGS. 4 and 5 will function as a low motion clutch.

**Please replace the paragraph beginning at page 9, line 1, with the following rewritten paragraph:**

The elasticity of ~~the moving part wheel~~ 10 is therefore used to create a low motion clutch, for example, for a time meter in a timer. This same elasticity can be used in order to guarantee the penetration of the teeth with ratchets or other elements, while handling the pivots of the ~~moving parts wheels~~. In figure FIG. 4, the clutch is in rest position, ~~the moving part wheel~~ 5 not being driven, and the elastic ~~moving part wheel~~ 10 is being able to turn freely on its ~~pin~~ staff A.

**Please replace the paragraph beginning at page 9, line 10, with the following rewritten paragraph:**

In figure FIG. 5, the bridge P undergoes a translation, comes into contact with ~~the moving part wheel~~ 10, and presses it against ~~the moving part wheel~~ 5, shifting the wheel rotation axis A by a deformation of the ~~zone part~~ 3. ~~The moving part~~ Wheel 10 is then in an engaged position.

**Please replace the paragraph beginning at page 9, line 15, with the following rewritten paragraph:**

In the module in figures FIGS. 6 and 7, ~~the moving part wheel~~ 20, with its hub 2, the elastic part 3, and its transmission zone part 4, is in the form of a star performing the function of a catch. ~~The elastic~~ Elastic part 3 of the star 20 performs the function usually performed by a spring plate. A section 21 of the catch is part of a bridge P or a ~~fixed still~~ counterbore.

**Please replace the paragraph beginning at page 9, line 22, with the following rewritten paragraph:**

~~The star~~ Star 20 thus advances by a notch, or a step, by a deformation of ~~the elastic zone~~ part 3 as represented in ~~figure~~ FIG. 7, and the star comes back into place after the passage of a point relative to ~~the~~ section 21.

**Please replace the paragraph beginning at page 10, line 4, with the following rewritten paragraph:**

Still in the ~~sector~~ field of watch-making, ~~the moving-part~~ wheel 1, 10 or 20 can be used as a lateral shock absorber for all watch applications.

**Please replace the paragraph beginning at page 10, line 7, with the following rewritten paragraph:**

In the method of construction in ~~figures~~ FIGS. 8 and 9, ~~the moving-part~~ wheel 30 includes a hub 2, an elastic ~~zone~~ part 3 consisting of a succession of concentric plates 31 ~~fixed to~~ the connected to hub 2 and the transmission ~~zone-3~~ part 4. As mentioned above, the method of construction of ~~figures~~ FIGS. 8 and 9 is not only intended for watch-making, but can be adapted to other applications such as car suspensions ~~for example~~. In fact, this system, adapted vertically and directly to wheels, can absorb shocks of all kinds and in all directions.